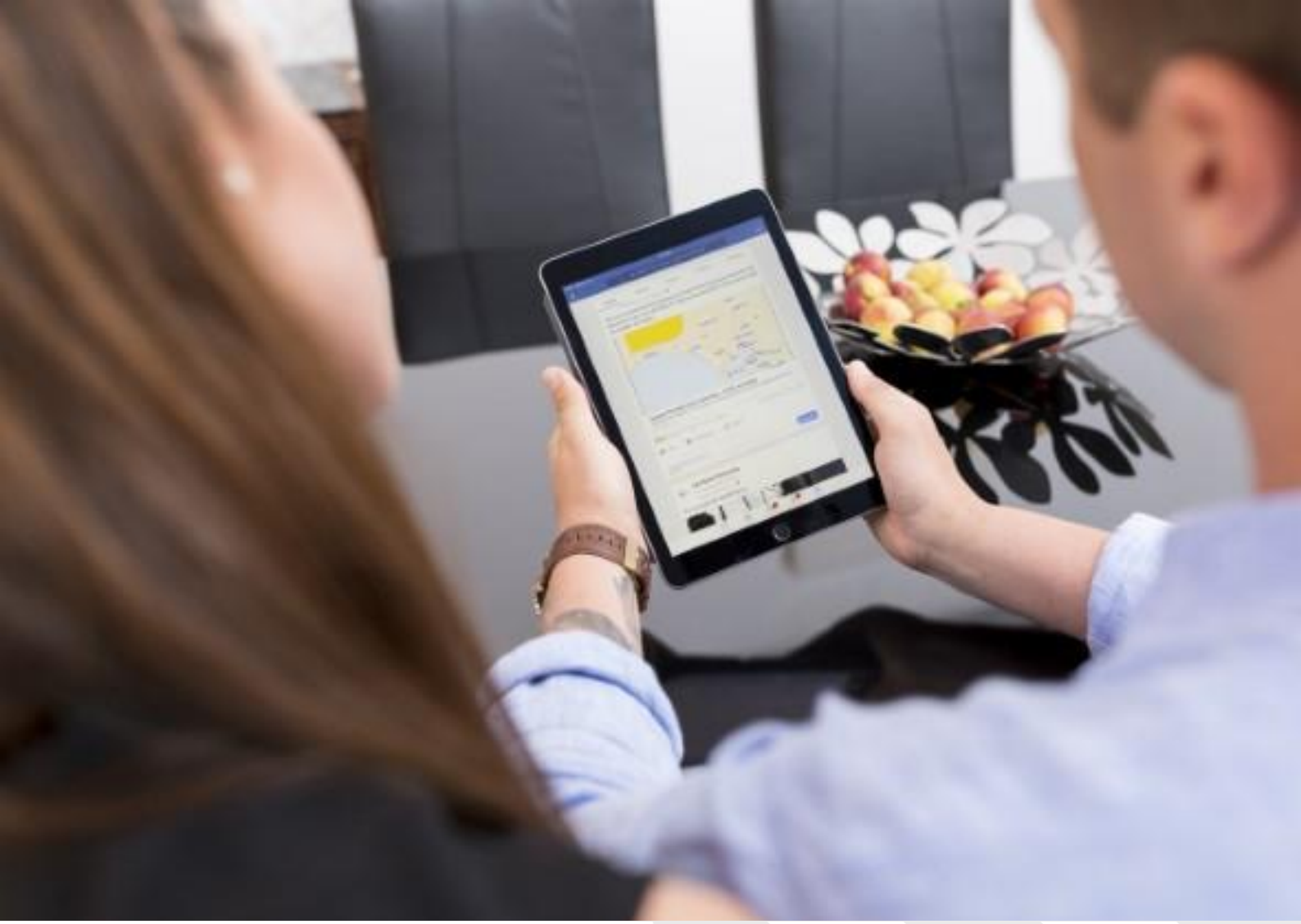


Business Case: ICT Non-Recurrent - Customer Technology Program: Personalised on Demand Services

2025-30 Regulatory Proposal

Supporting document 5.12.22

January 2024

SA Power Networks

Empowering South Australia

Contents

Glossary

Acronym / term	Definition
AEMC	Australian Electricity Market Commission
AI	Artificial intelligence
BAU	Business as usual
CALD	Culturally and linguistically diverse
Capex	Capital expenditure
CER	Customer energy resources
CRM	Customer relationship management system
DXP	Digital experience platform
EV	Electrical Vehicles
FE	Flexible Exports
ICT	Information and Communication Technology
IT	Information Technology
MDI	Meter data insights
NPV	Net present value
Opex	Operating expenditure
RCP	Regulatory control period
SAAS	Software as a Service
SME	Subject matter experts
SMS	Short message service

1. About this document

1.1 Purpose

This document provides a business case to justify forecast expenditure for the 2025–30 Regulatory Control Period (**RCP**) for the development of new digital customer self-service capabilities which delivers faster response times to key customer interactions and enquiries.

1.2 Expenditure category

- Non-network Information and Communication Technology (**ICT**) capital expenditure (**capex**): Non-recurrent – New or expanded capability
- Non-network ICT Operating expenditure (**opex**): Base year adjustment – Software as a Service related

1.3 Related documents

Table 1: Related documents

Title	Author	Version / date
5.12.1 - IT Investment Plan 2025-30	SA Power Networks	Jan 2024
5.12.17 - Customer Program: Website replacement Business Case	SA Power Networks	Jan 2024
5.12.18 - Customer Program: Consolidate Customer Portals Business Case	SA Power Networks	Jan 2024
5.12.19 - Customer Program: Customer Notification System Replacement Business Case	SA Power Networks	Jan 2024
5.12.20 - Customer Program: Meter Data Insights System Replacement Business Case	SA Power Networks	Jan 2024
5.12.21 - Customer Program: CRM Replacement & Data Consolidation Business Case	SA Power Networks	Jan 2024
5.12.27 - Program Overview - Customer Technology Program	SA Power Networks	Jan 2024
0.2 Customer Values Research	Marsden Jacob	Dec 2022
IT Asset Management Plan	SA Power Networks	Jan 2024

2. Executive summary

SA Power Networks is experiencing increasing demand for customer services, largely in response to the increasing complexity of the industry and increased use of customer energy resources (**CER**). Our current customer service processes for high-volume customer services are heavily manual/paper based, are no longer meeting customer expectations, and will drive higher customer service costs in the 2025–2030 period, if nothing is changed.

During the current regulatory period, SA Power Networks has observed changes in customer demographics and customer services preferences that are resulting in a significant increase in the consumption of digital services currently offered. Given the strong customer preference to interact through digital channels, we need to consider how to leverage digital services to both meet our customers' expectations and manage our cost to serve customers, without compromising our level of service to customers.

The proposed new self-services will provide customers with:

- time saving, more convenience and timely status updates related to common customer services, including general enquiries, claims, complaints, connection-related status/enquiries, and property access
- quick and easy access to information related to new energy initiatives, eg, information regarding real-time management of solar exports (dynamic operating envelopes)
- elimination of the need to seek information from multiple participants when they are involved in the delivery of key services, eg, retailers, electricians and SA Power Networks are all involved in delivering connections requests and associated status information
- access to mobile-friendly services in line with customer expectations and accessibility standards (we have identified that customer interactions with existing digital services is most common through a mobile device)
- a greater level of digital self-service in alignment with what is already being offered across the industry.

This business case is dependent on the reuse of technology capabilities delivered in the Customer Portal Consolidation, Customer Relationship Management System (**CRM**) Replacement and Consolidation business cases.

A prudent investment in digital technology to manage the cost-of-service delivery and dissemination of important information to customers during a phase of rapid industry change is recommended in this business case. The total expenditure for this preferred option **is $9.2 million[1], of which $8.6 million is within the 2025–30 RCP. The 2025–30 RCP forecast is $1.2 million of non-recurrent capex and $7.4 million of non-recurrent opex.** The net present value (**NPV**) over the 10-year period is $8.2 million and the overall residual risk rating is Low.

Other options considered and discussed with customers were:

- **Option 0 -** Maintain the existing systems and services as is: not recommended as SA Power Networks will not introduce any new self-services or increase the proactivity of our digital communications to customers. The option is not feasible as there will be no material increase in benefits or efficiencies for the business, and the manual effort required to engage with our customers will continue to escalate. There were no quantified benefits, so the NPV was $0 and the residual risk was High.
- **Option 2 -** New self-service for households and business: not a feasible option as, while the spend was considered efficient, it was not supported by customers. This option delivers all the capabilities noted within Option 1 with the addition of large/complex customer connections, connections-indicative quoting tool and web chat functionality. The NPV was $7.1 million and the residual risk was Low.

[1] Unless otherwise specified, all financial figures in this business case are in real June 2022 dollars

Table 2: Costs, benefits and risks of alternative options relative to the base case over the 10-year period, $m, $ June 2022 real[2].

	Total program costs			2025 –2030 costs			Benefits	NPV[3]	Risk level[4]
Option	**Capex**	**Opex**	**Total**	**Capex**	**Opex**	**Total**			
Option 0 – Maintain the existing systems and services as is (Base case)[5]	–	–	–	–	-	-	–	–	High
Option 1 – Enable new digital services (Recommended)	1.2	8.0	9.2	1.2	7.4	8.6	21.4	8.2	Low
Option 2 – New self-service for households and business	2.8	16.7	19.5	2.8	15.1	17.9	31.2	7.1	Low

The recommended option (upgrade existing solutions to enable new digital services) was selected because it:

- leverages technology to deliver more-efficient processes that remove reliance on paper records and manual data entry for high-volume customer service processes;
- reduces cost of mass short message service (**SMS**) messaging by directing customers to a lower-cost mobile application channel;
- leverages digital technologies to obtain the greater level of customer insights required to proactively and cost-effectively respond to changes in customer behaviours and service expectations;
- remediates current employee overheads caused by inefficient processes and challenges relating to how we exchange information with industry participants, such as retailers and electricians; and
- manages the projected cost increases to deliver customer services as the number and complexity of customer enquiries increases (based on current period trends).

[2] Note: Totals presented in tables throughout this document may not exactly match the sums of individual figures due to rounding
[3] Net present value (NPV) of the proposal over 10-year cash flow period from 1 July 2025 to 30 June 2035, based on discount rate of 4.05%.
[4] The overall risk level for each option after the proposed option is implemented.
[5] The costs and NPV of option 0 (base case) have been set to zero as the costs associated with this option have been included as benefits of other options as appropriate.

3. Background

3.1 The scope of this business case

This investment is focused on delivering improved digital customer services related to:

- General enquiries
- Customer claims and complaints
- Connections-related services, including connection order status information
- Property access
- Digital service analytics and reporting
- Mobile application interface for full range of services, including solar constraint information, service requests, outage reporting and notifications. The mobile application will provide a mobile app interface for portal services outlined in the Customer Portal Consolidation business case.

The scope of this business case is to invest in self-service capabilities and a mobile application to engage with customers and disseminate information, with the intention of resolving customer enquiries quickly and efficiently and reducing the burden on our customer teams and therefore the cost to serve customers. A mobile application will also reduce the volume of costly SMS and mail communications currently used to communicate with customers.

3.2 Our performance to date

In 2022, as per Figure 1, we processed approximately:

- 128,000 general enquiries
- 1,017 claims and 2500 complaints
- 16,000 calls related to claims and complaints
- 7,000 calls regarding meter reading and property access
- 230,000 service order requests for disconnections, reconnections, and special meter reads, and handled 31,000 enquiries regarding the status of these requests.

Between 2017 and 2022, we observed growth in these core services, with claims processed increasing by 67%, complaints by 130%, general enquiries phone calls by 6.7% and average call times increasing from 5.28 minutes to 8.7 minutes. Despite these numbers, we do not currently offer a digital self-service that provides any proactive communication material to customers regarding these requests, or any self-service capability where customers can search their own interaction records.

The number of SMS sent to customers has significantly increased between 2017 and 2022, with customers preferencing proactive communications as a method to receive critical, up-to-date information regarding their electricity matters. In 2022, we sent approximately 4.2 million SMS to our customers, compared to 1.7 million in 2017. The increasing popularity of SMS as a customer service channel will result in cost increases if we don't consider lower cost, proactive notification methods, such as mobile application notifications, as a means for providing quick and personalised information to our customers.

We currently offer vital information to customers regarding emergencies, such as storms, fire and floods, CER compliance obligations, and safety campaigns that can improve the lives of our customers. This information is offered primarily via our website and through SMS and email messaging. Extending this capability to deliver other proactive communications and online self-services regarding the energy transition has benefits for our Network teams and customers, including enabling our customers to receive

up-to-date information regarding constraints impacting their solar exports, through a mobile application interface.

	Services	Base year volume (2017)	Comparison year volume (2022)	Average p.a. volume increase %	Total volume increase %
Core Services	Unplanned outage reporting (phone and online)	49,890	107,826	23%	116%
	Planned outage notification jobs	6000	9700	12%	61%
	Life support customers registered	6,771	18,491	35%	173%
	Claims	610	1017	13%	67%
	Complaints	1100	2500	26%	130%
	New connections, alternations	20,424	19,123	0%	-2%
	General enquiries telephone calls	120,000	128,000	1%	6.70%
	Average general enquiries call time (mins)	5.28	8.7	13%	65%
Digital Channel Engagement	Website visitors (unique)	500,000	2,249,598	60%	300%
	Website page views	2,000,000	9,696,914	80%	400%
	Social media direct messages	2,500	6,000	28%	140%
	Social media posts	200	1,200	100%	500%
	Planned outage SMS notifications	238,374	724,860	40%	204%
	Unplanned outage SMS notifications	1,400,000	3,100,000	24%	121%
	Tailored outage notifications	16,485	356,859	164%	2000%
	Total interactions	**4,362,354**	**16,422,088**	**55%**	**276%**

Figure 1: Customer service interactions 2017–2022

3.3 Drivers for change

Manage customer service expectations during the energy transition

Targeted investment in digital technology is required to manage the cost-of-service delivery and dissemination of important information to customers during a phase of rapid industry change. The current process and systems in place to manage customer service are not designed to – and cannot – support the demand for increased fast, seamless, and self-service capabilities.

The increases in customer service demand are largely in response to the growing complexity of the energy sector, increased use of CER by the South Australian community, and the push to electrify the home, which combines to offer our customers the opportunity to decarbonise and save money[6]. Currently, the electricity network delivers around 22% of state end-use energy and ultimately, we might supply 80%+ of South Australia's energy needs as the reliance on gas and transport fuels declines[7]. As more of the community electrify all aspects of their home, for example, cooking, heating and hot water, and take up electric vehicles (EVs), it creates a higher dependency on the network as every aspect of a customer's day becomes reliant on electricity. We know this level of dependency demands a timely and responsive interaction with the customer. The historic and forecasted customer uptake of CER has been modelled in Figure 2 projected increases in CER, in Figure 3 and Table 3.

[6] https://www.rewiringaustralia.org/media/all-electric-homes-will-save-thousands-each-year-for-outer-metro-households
[7] Source: Australian Energy Statistics + SA Power Networks

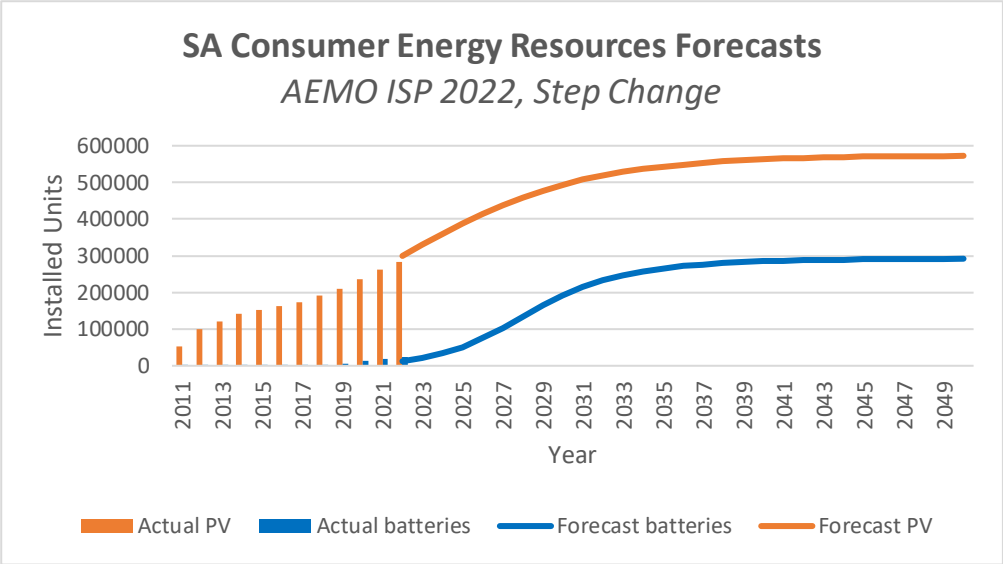


Figure 2: SA consumer energy resources forecasts

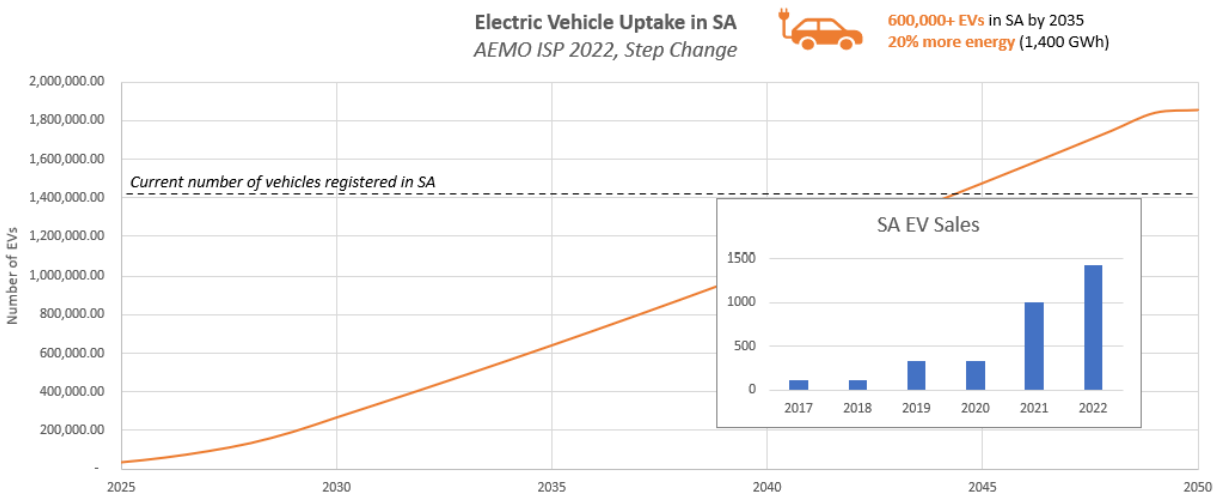


Figure 3: Electric vehicle uptake in SA

Table 3: Customer CER projected uptake 2025–2030

CER type	Base volume (2025)	Future volume (2030)	Average p.a. volume increase %	Total volume increase %
Solar PV	386,714	493,425	6%	28%
Batteries	51,326	192,797	55%	276%
EV	31,674	264,026	147%	734%
Flexible Exports (residential)	57,143	216,083	56%	278%
Total CER	**526,857**	**1,166,331**	**24%**	**121%**

Respond to projected growth in new energy services

We recently introduced new services, including the Flexible Exports initiative, aimed at increasing the capacity of our network to support solar, enabled through modern, smart, internet-connected inverters that allow us to manage export limits based on network capacity (otherwise known as dynamic operating envelopes). The Flexible Exports service has resulted in a greater level of digital connection with our customers, and the service is expected to grow significantly in the 2025–2030 period, with projected

increases of 56% per annum, driving a need for us to consider how we can provide quick, accessible information to our solar customers while avoiding increasing SMS volume and cost.

Meet customer expectations through lower cost digital channels

Providing a self-service capability focused on enquiry resolution, allowing customers to access status updates when and where they want, would greatly enhance the efficiency, and reduce cost of, service delivery.

"When customers can't solve their issues via self-service, they resort to live customer service calls to solve their problem – thereby driving up operating costs. Gartner's 2019 Customer Service and Support Leader poll identified that live channels, such as phone, live chat and email, cost an average of $8.01 per contact, while self-service channels, such as company-run websites and mobile apps, cost about $0.10 per contact."[8]

Our existing services for service-order enquiries, meter reading, property access, claims and complaints rely on ad-hoc methods of communication, primarily phone calls, and manual effort to source and disseminate the information. This results in significant administrative overhead, impacting our productivity, constraining our ability to achieve efficiency gains and limiting our capacity to deliver a positive experience for our customers.

Respond to increased digital literacy in our customer demographic

The demographic of our customer base has also changed, with the number of digitally savvy customers now making up the majority of our customer base and subsequently, expecting a high level of digital service capability to be made available for their customer service needs.

Meet customers' preference for mobile interfaces and technologies

With our website reaching 9.6 million visits in 2022, (an increase of 3 million from 2021), and with the majority (54%) of these customers visiting via their mobile device, our customers expect an easy, efficient and mobile-friendly digital experience when accessing our services.

An application will provide customers with 'any time, anywhere' access to information. Automated status updates could mean thousands of interactions with our operational teams and Contact Centre could be eliminated. Example scenarios include constraints being applied to solar exports and emergency voltage management events. A mobile application can enable customers to receive 'push' notifications from us at a lower cost than an SMS. Customers can also manage what type and how often they receive update's from us.

Leverage foundational investments in customer technology, expediating time to deliver customer outcomes

Creating this capability in the next regulatory period, after we have replaced our CRM and data model, and consolidated our customer portals, provides an opportunity to leverage the digital technologies that will be built as part of these respective business cases (CRM Replacement and Customer Data Consolidation and Customer Portal Consolidation).

3.4 Industry practice

Industry players across distribution, such as Citipower[9], Ausgrid, Energy Queensland and Endeavour Energy, have each created digital self-services and apps for customers to access improved information about a range of services.

In the following Regulatory period:

[8] Gartner 2019 Report on customer service effectiveness (https://www.gartner.com/en/newsroom/press-releases/2019-09–25)
[9] https://apps.apple.com/au/app/outages/id789297923

- Ausgrid's 2024–2029 proposal[10] focuses on introducing self-service portals for councils and an upgrade to their portal for connections and disconnections. Ausgrid also plans to simplify the culturally and linguistically diverse (**CALD**) customer experience and to introduce CALD-friendly systems and personalisation that remembers CALD customer preferences.
- Essential Energy's customers have supported Essential's investment in a new customer service relationship system and online portal or application. Customers' most preferred services for an online service were for reporting an outage and seeing updates on the time to restore, reporting a faulty streetlight or network issue and seeing updates on when it will be fixed, and reporting vegetation issues and seeing updates on when vegetation will be trimmed.[11]
- Endeavour Energy's 2024–2029 proposal has included a new connections portal to replace paper-based application processes with a web-based, online solution. The new portal is also planned to introduce a dashboard to provide customers real-time transparency of application status, key milestones, and fee information.[12]

The above examples are indicative of a focus for individual point solutions adding to the distributor's current services. Our ambition is to provide a full digital service offering through a single, consolidated portal (Customer Portal Consolidation business case) and extend this through a single mobile application interface proposed in this business case.

Proposals for the current regulatory period featured a range of full customer self-service capabilities, such as:

- Jemena, whose customers noted that Jemena should improve the information available to customers and the ease of access to smart meter data by improving Jemena's portal and adding additional services, such as apps for smart phones[13]. Jemena's customers also recommended that Jemena should improve their channels of customer service by increasing their services to include mobile apps and by using simpler processes.
- United Energy's investment in the customer enablement program[14] is intended to enhance the way customers can engage with them. It will improve customers' ease of access to online services, such as myEnergy, through consolidating their existing portals into a 'one-stop shop'. Customers will be able to access usage data and submit network upgrade or extension requests online, replacing paper-based systems, and check the status of requests online.

This correlates with a recognised shift across distribution businesses to better engage and connect with customers where mobile apps can also assist customers to monitor electricity usage, manage their customer or outage information, and access status updates.

[10] https://www.aer.gov.au/system/files/Ausgrid%20-%202024–29%20Regulatory%20Proposal%20-%2031%20Jan%202023%20-%20Public_0.pdf
[11] https://www.aer.gov.au/system/files/Essential%20Energy%20-%202024–29%20Regulatory%20Proposal%20-%20Jan23%20-%20Public.pdf
[12] https://www.aer.gov.au/system/files/Endeavour%20Energy%20-%200_01%20Regulatory%20Proposal%20-%20January%202023%20-%20Public.pdf
[13] https://www.aer.gov.au/system/files/Jemena%20-%202021–26%20Regulatory%20Proposal%20-%20Overview%20-%2031%20January%202020.pdf
[14] https://www.aer.gov.au/system/files/United%20Energy%20-%20Regulatory%20Proposal%20-%2031%20January%202020.pdf.

4. The identified need

The driver for investment action being considered in this business case is the customer requirement for easy and secure access to critical and personal energy service information and the containment of increasing costs to provide our core, high-volume customer services. The key issue is that we don't currently provide efficient digital services for a range of interaction types nor do we have a mobile app capability that supports quick and efficient customer access and notification of key alerts/notifications. These issues will escalate as customers become more dependent on the electricity network in their daily lives and drive up our costs to manage the manual nature of delivering these services today.

In considering potential responses to this driver, we engaged with our customers on their desired service level outcomes, balanced against price outcomes, and considered our regulatory requirements under the National Electricity Rules (NER), National Electricity Law and jurisdictional regulations. As a result of these considerations, the identified need for our portal consolidation is as follows:

- To respond to customers' concerns[15], identified through our consumer and stakeholder engagement process, regarding their explicit service level recommendations that we:
    - provide easy to access and consume information when they want it, through self-service.
    - invest in future-proof solutions that will support dissemination of quick information to customers in support of the energy transition.
- To continue to comply with applicable regulatory obligations/requirements[16], in this case with specific reference to:
    - the Electricity Distribution Code, Essential Services Commission– to continue to meet our customer service response-time obligations despite an increased number of enquires and transactions.
- To maintain the safety of our distribution network and system, in relation to the risk of harm to workers, consumers and community, through the provision of easy-to-access and clear information for all customers when they need it.
- To ensure the best long-term efficient cost for our services.

[15] This is pursuant to Clause 6.5.7(c)(5A) of the NER, which requires regard to be had to the extent to which forecast expenditure seeks to address the concerns of distribution service end users identified by the distributor's engagement process.

[16] This is pursuant to Clause 6.5.7(a)(2) of the NER, which requires expenditure in order to comply with all appliable regulatory obligation s or requirements associated with the provision of standard control services.

5. Comparison of options

In this section we discuss the three options considered for self-services.

5.1 The options considered

Table 4: Summary of options considered

Option	Description
Option 0 – Maintain the existing systems and services as is (Base case)	SA Power Networks will not introduce any new self-services or increase the proactivity of our digital communications to customers. There will be no material increase in benefits or efficiencies for the business, and the manual effort required to engage with our customers will continue to escalate. Further, we will not keep pace with the increased demand for customer services, and rising cost-of-service delivery will introduce significant administrative overhead that will continue to grow over time, with the potential to eventually become unsustainable.
Alternative options	
Option 1 – Enable new digital services (Recommended)	This option provides customers with proactive communications, online self-service, and a mobile application designed to efficiently resolve enquiries. Utilising these new capabilities and functionalities, customers can seamlessly manage common enquiries, such as the status of their connection requests and meter reads, claims, and complaints, provide information on property access, and receive communications (eg, solar export, power outages). The introduction of an app will also enable us to meet community expectations to access mobile-friendly services.
Option 2 – New self-service for households and business	This option delivers all the capabilities noted within Option 1, with the addition of large/complex customer connections, connections-indicative quoting tool and web chat functionality. These additional service capabilities and functionalities will provide improved collaboration and exchange of information with our large business customers, and increased channel choice for customers. However, while the spend was considered efficient, this option was not supported by customers.

5.2 Options investigated but deemed non-credible

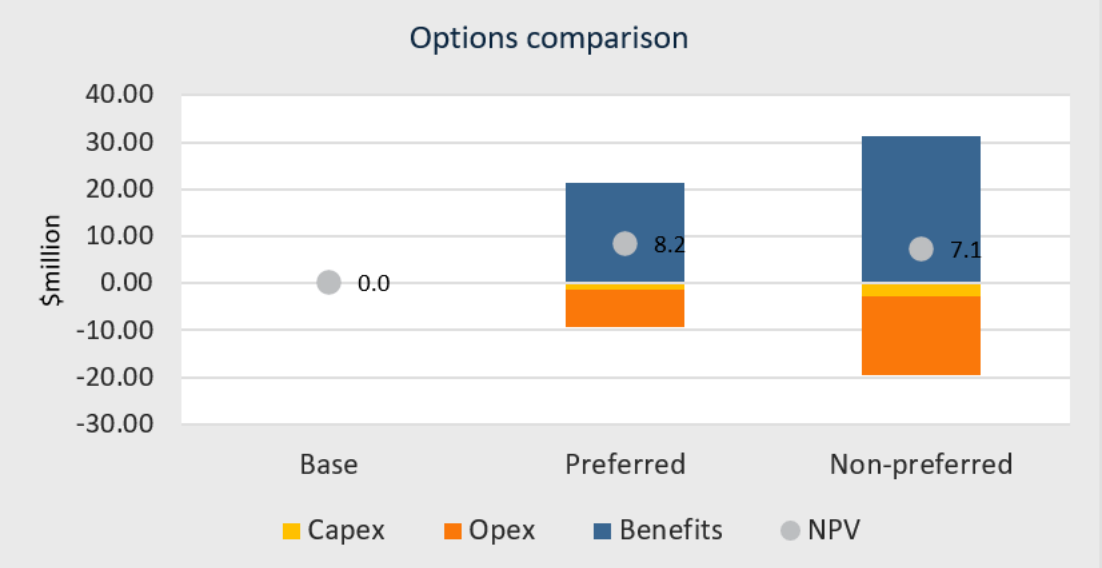
In investigating our options, we considered the use of advanced artificial intelligence (**AI**)-based solutions to support the automation of our web-based and telephony services. While artificial intelligence is gaining maturity and being actively invested in by many organisations, we deemed the implementation of these services extending the needs of our customers for cost-efficient services. We will revisit the use of AI-based tools in customer services post-implementation of the Customer Technology program.

5.3 Analysis summary and recommended option

5.3.1 Options assessment results

Table 5: Costs, benefits and risks of alternative options relative to the base case over the 10-year period, $m, $ June 2022 real.

	Total program costs			2025–2030 costs			Benefits[17]	NPV[18]	Risk level[19]	Ranking
Option	**Capex[20]**	**Opex[21]**	**Total**	**Capex[22]**	**Opex[23]**	**Total**				
Option 0 – Do nothing (Base case)[24]	–	–	–	–	-	-	–	–	High	3
Option 1 – Enable new digital services (recommended)	1.2	8.0	9.2	1.2	7.4	8.6	21.4	8.2	Low	1
Option 2 – New self-service for households and business	2.8	16.7	19.5	2.8	15.1	17.9	31.2	7.1	Low	2



Assumptions

Key assumptions to note in relation to the NPV results, above, include:

[17] Represents the total capital and operating benefits, including any quantified risk reductions compared to the risk of Option 0 (base case), over 10-year cash flow period from 1 July 2025 to 30 June 2035 expected across the organisation as a result of implementing the proposed option.
[18] Net present value (NPV) of the proposal over 10-year cash flow period from 1 July 2025 to 30 June 2035, based on discount rate of 4.05%.
[19] The overall risk level for each option after the proposed option is implemented. Refer to Appendix C – Risk Assessment for details.
[20] Represents the total capex associated with the proposed option over the 10-year cash flow period from 1 July 2025 to 30 June 2035.
[21] Represents the total opex increase associated with the proposed option above the current level of opex, over the 10-year cash flow period from 1 July 2025 to 30 June 2035.
[22] Represents the total capex associated with the proposed option over the 5-year cash flow period from 1 July 2025 to 30 June 2030.
[23] Represents the total opex increase associated with the proposed option above the current level of opex, over the 5-year cash flow period from 1 July 2025 to 30 June 2030.
[24] The costs and NPV of option 0 (base case) have been set to zero as the costs associated with this option have been included as benefits of other options as appropriate.

- While Section 5.5.2, below, includes projected cost increases under Option 0, the NPV of these has been assumed to be a cost avoidance benefit of Options 1 and 2 when calculating their NPVs. This enables them to be more easily compared to a zero base for Option 0.
- It is expected that cost reductions identified will be used to offset the additional recurrent costs of new services/platform capabilities and reduce/avoid the realisation of future cost increases.
- This project is planned to be a software as a service (SaaS) solution and hence, most of the costs of implementation are considered operating expenditure.
- Current customer interaction volumes and SMS costs will increase in future periods (this is based on historical trend data and AEMO forecasts etc).

5.3.2 Recommended option: Option 1 – Enable new digital services

The recommended option is option 1 – enable new digital services. This solution provides residential customers with proactive communications and online self-service through digital channels, and a mobile app.

SA Power Networks will introduce new digital self-service capabilities to meet the increasing demand for efficient and seamless digital processes. This includes the ability for customers to access digital self-service for the following common enquiries:

- Status of connections-related requests eg, move in/move out of home connection status
- Meter-reads status information
- Submission and status of claims and complaints
- Provision of information on property-access instructions to SA Power Networks

It will also enable them to access a full range of services on a mobile app that can be downloaded to their mobile devices, making it easier to access digital services and receive alters and notifications from SA Power Networks.

To support our customers through the energy transition, digital channels allow us to proactively share information and allow customers to engage and interact at a time and place of their choosing. To manage the network in this changing environment more effectively, we will need to share key information with our customers, eg, for providing customers with timely information in regards to constraints impacting their solar export.

Through the introduction of a mobile app, customers will be able to access all online services (there is a dependency on the CRM Replacement and Customer Data Consolidation and Customer Portal Consolidation business cases). A mobile app capability will not only improve user experience and ease of access for our customers, it will also further support our goal of proactive communications, with the ability to enable ‘push’ notifications at a lower cost than our currently used communication method of an SMS.

Customers will receive proactive communications via status updates/push updates across a range of services, without the need for call centre interactions or having our teams continuously follow up the customer for information. We have thousands of interactions per year directed to our operational teams and Contact Centre that could be significantly reduced or eliminated – the implementation of this solution includes reducing the time to respond to approximately 2,600 monthly connections-related service order status information requests.

Benefits for this option include the ability to:

- leverage technology to deliver more efficient processes, which removes reliance on paper records and manual data entry
- reduce cost of mass SMS messaging through lower cost channels, such as a mobile application

- leverage digital technologies that will be built as part of the customer portal replacement expenditure to obtain the greater level of customer insights required to proactively and cost-effectively respond to changes in customer behaviours and service expectations
- use customer insights to better forecast and model energy transition trends and distributed energy resource uptake
- decrease the need for customers to contact multiple industry participants, such as retailers and electricians, by providing self-services for connections-related enquiries
- manage costs as the number and complexity of customer enquiries increases (based on current period trends).

This option provides an efficient option to address the growing digital needs of our customers. It provides modern self-service capabilities to seamlessly support access by all our customers through an enhanced experience while also improving the efficiency of our internal processes. This solution will play a significant role in us being able to fulfil our customer service vision and continue to meet customers' growing expectations. It is also supported by customers. Therefore, this is the recommended option.

Appendix A lists the cost and benefit models for each option. Appendix B details the Software as a Service (**SAAS**) opex adjustments request for the preferred option. Appendix C provides the detailed risk analysis for each option.

5.4 Comparison of options: Option 0 – Maintain the existing systems and services as is

5.4.1 Description

This option focuses on maintaining the existing systems and levels of services, which are heavily reliant on manual processes.

In 2022, we processed 31,000 status enquiries for connections-related services, 7,000 calls regarding meter reading and property access, and 1,600 calls related to claims and complaints, which are handled firstly by our Contact Centre and then forwarded to other teams to answer, where required. General customer enquiries are also increasing, largely in response to the increasing complexity of the energy sector, as well as the high take-up and use of CERs by South Australians. All of this translates into an upward trend in call volumes to the Contact Centre, as well as a continued increase in average call duration.

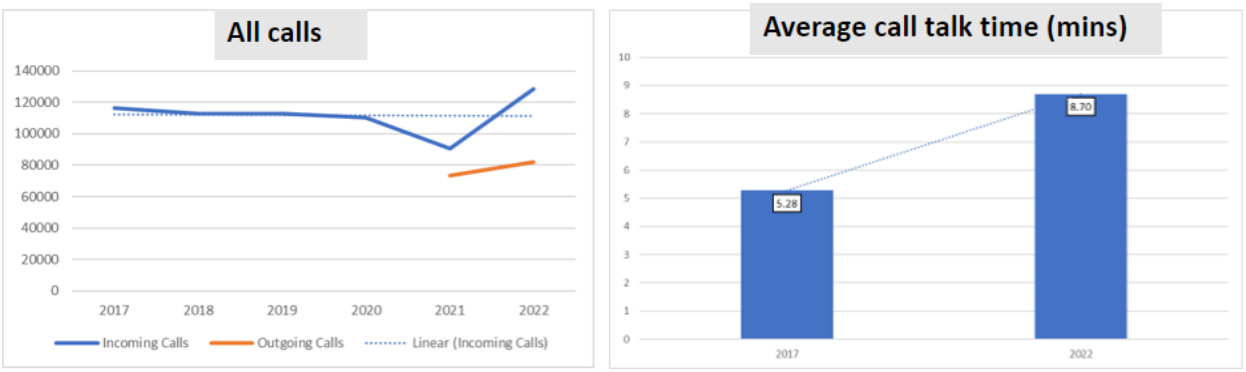


Figure 4: 2017–2022 customer service trends

The rise in call volume and duration are placing an increasing strain on our existing resources. It is expected that staffing levels will need to be increased to manage the forecast rise and our obligations to Electricity Distribution Code, Essential Services Commission for customer service response times.

This increase in resources across the Contact Centre and operations teams will be required to manually respond, direct customer enquiries or follow up with customers. As with any manual process, there is an increased risk of error and inconsistency in messaging and approach.

While replacing our website and consolidating our customer portals (discussed in other business cases) will address some customer enquiries and elements of an improved digital experience, they do not address the specific self-service needs highlighted by this business case.

5.4.2 Costs

Under Option 0, we foresee costs of customer service delivery increasing in the future, in response to the energy transition resulting increases to customer services demand. The cost increases have been calculated as a future year cost avoidance in the NPV calculation for Options 1 and 2.

5.4.3 Risks

Table 6: Option 0 – Risk assessment summary

Risk consequence category	Risk description	Current risk level[25]
Financial impact – Cash loss or earning impacts	Increasing costs of providing customer services, including labour costs and communication costs	**High**
Customers – Failure to deliver on customer expectations	Inability to respond to increasing demand for customer services (ie, volume and complexity in an accessible way with a fast response time).	**High**
Performance and growth – Failure to effectively deliver project objectives and/or benefits	Work inefficiency and redundancy resulting from labour-intensive manual work process.	**High**
Advocacy, partnerships and collaboration – Misalignment between stakeholders and strategic objectives	Misalignment with the 2022–26 Customer Strategy and 2021–25 Digital & Data Strategy.	**High**
Performance and growth – Failure to effectively deliver project objectives and/or benefits	Data quality issues and process cost risks associated with paper records and manual data entry.	**High**
Advocacy, partnerships and collaboration – Misalignment between stakeholders and strategic objectives	Inefficiency and challenges relating to information sharing with industry participants, such as retailers and electricians.	**High**
Overall risk level		**High**

Table 7: Option 0 – Risk cost by category

Risk consequence category	Risk description	Risk cost[26]
Financial impact – Cash loss or earning impacts	Increasing costs of providing customer services, including labour costs and communication costs.	$500K – $5M
Overall risk costs		**$500K – $5M**

[25] The level of risk post current controls (ie after considering what we currently do to mitigate the risk).

[26] Estimated cost of consequence(s) to SA Power Networks or its customers in an event this risk eventuates over the NPV analysis period

5.4.4 Quantified benefits

There are no quantifiable benefits from this approach.

5.4.5 Unquantified benefits

There are no unquantified benefits with this approach.

5.5 Comparison of options: Option 1 – Enable new digital services (Recommended)

5.5.1 Description

This solution provides residential customers with proactive communications and online self-service through digital channels, and a mobile app. This allows us to deliver an acceptable customer experience as expected of us in a modern world. Not only will we be meeting community expectations to access mobile and digital-friendly services, but we will also be managing the future cost increases for customer services delivery.

Using these new capabilities and functionalities, customers can seamlessly and easily self-serve their enquiries about the status of connection-related requests and meter reads and submit and get status updates on their claims and complaints, as well as provide information on property access, without needing to call us.

To support our customers through the energy transition, digital channels allow us to proactively share information and allow customers to engage and interact at a time and place of their choosing. To manage the network in this changing environment more effectively, we will need to share key information with our customers, e.g., providing them with timely information in regard to constraints impacting their solar export, and potentially, in the future, other constraints such as electric vehicle (EV) charging periods.

Through the introduction of a mobile app, customers will be able to access all online services (there is a dependency on the CRM Replacement and Customer Data Consolidation and Customer Portal Consolidation business cases). A mobile app capability will not only improve user experience and ease of access for our customers, it also further supports our goal of proactive communications, with the ability to enable ‘push’ notifications at a lower cost than the currently used communication method of an SMS.

With this solution, customers will receive status updates/push updates across a range of services without needing to call the Contact Centre for information or having our teams continuously chase the customer for information. We have thousands of interactions per year directed to our operational teams and Contact Centre that could be significantly reduced as a result of the implementation of this solution. Customers will also save time with the self-service options, which allows an ‘any time, anywhere’ engagement. Customers won’t have to interrupt a busy workday to call us about something they can check themselves.

Proactive communication will also be enabled with this solution. We will be able to provide quick and easy access to new energy initiatives proposed in the 2025–2030 period, eg, real-time management of solar exports and more timely status updates related to common enquiry types, which will eliminate the need for customers to seek information.

This solution will play a significant role in us being able to fulfil our customer vision and is NPV positive. Therefore, this is the recommended option.

5.5.2 Costs

Table 8: Option 1 – Costs by cost type ($m June 2022 real)

Cost type	2025–26	2026–27	2027–28	2028–29	2029–30	Total 2025–30	2030–31	2031–32	2032–33	2033–34	2034–35	Total 2025–35
Capex	-	-	-	-	1.2	1.2	-	-	-	-	-	1.2
Project opex	-	-	-	1.4	6.0	7.4	-	-	-	-	-	7.4
Recurrent opex	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.1	0.7
Total	-	-	-	1.4	7.2	8.6	0.1	0.1	0.1	0.1	0.1	9.2

5.5.3 Risks

Table 9: Option 1 – Risk assessment summary

Risk consequence category	Risk description	Residual risk level[27]
Financial impact – Cash loss or earning impacts	Increasing costs of providing customer services, including labour costs and communication costs.	Low
Customers – Failure to deliver on customer expectations	Inability to respond to increasing demand for customer services (ie, volume and complexity in an accessible way with a fast response time).	Low
Performance and growth – Failure to effectively deliver project objectives and/or benefits	Work inefficiency and redundancy resulting from labour-intensive manual work process.	Low
Advocacy, partnerships and collaboration – Misalignment between stakeholders and strategic objectives	Misalignment with the 2022–26 Customer Strategy and 2021–25 Digital & Data Strategy.	Negligible
Performance and growth – Failure to effectively deliver project objectives and/or benefits	Data quality issues and process cost risks associated with paper records and manual data entry.	Low
Advocacy, partnerships and collaboration – Misalignment between stakeholders and strategic objectives	Inefficiency and challenges relating to information sharing with industry participants, such as retailers and electricians.	Low
Overall risk level		Low

The risk cost calculation is not applicable given the very low residual risk levels.

5.5.4 Quantified benefits

The quantified benefits of this option relate to:

Cost savings

- Reduction in mail/call/hand delivery of planned work notifications, replaced by push app notification ($0.1 million)

[27] The level of risk post current controls (ie after considering what we currently do to mitigate the risk).

Cost avoidance

- Avoidance of additional staff costs being incurred as the number of Contact Centre calls are reduced ($9.9 million)
- Reduced volume of SMS and mail communications used to communicate with customers ($5.5 million)
- Reduced staff time in administration of claim and complaints ($0.9 million)
- Reduced staff time required to manage common customer queries, eg, time to respond to connection-related enquiries ($0.6 million)

Customer benefit

- Reduced time customers spend on calls with SA Power Networks as the number of calls to the Contact Centre is reduced ($3.4 million)
- Reduced customer time required to raise common customer queries, such as service orders, claims and complaints, and reduced follow-ups due to self-service submission and status updates ($0.6 million)
- Reduced time to respond to enquiries from retailers regarding customer connection-related requests, saving customers time in resolution and outcome of their enquiry with retailers ($0.5 million)

Table 10: Option 1 – Benefits by expenditure type ($m June 2022 real)

Cost type	2025–26	2026–27	2027–28	2028–29	2029–30	Total 2025 – 30	2030–31	2031–32	2032–33	2033–34	2034–35	Total 2025–35
Cost savings	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Cost avoidance	-	0.1	0.1	0.1	1.4	1.7	2.0	2.4	2.9	3.7	4.2	16.9
Customer benefit[28]	-	0.1	0.1	0.1	0.4	0.5	0.6	0.7	0.8	0.9	1.0	4.4
Risk monetisation	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	0.1	0.1	0.2	1.8	2.2	2.6	3.1	3.7	4.6	5.2	21.4

5.5.5 Unquantified benefits

This solution offers an enhanced digital experience to our customers that goes beyond the reduction in calls – it has the power to imbue our customers with confidence in our capabilities and our understanding of their needs, building their trust and therefore, their willingness to engage on topics such as electrification of the home or CER assets, which enables us to manage the network in a way that benefits us and the customer.

Other unquantified benefits in this option are:

- The ability to meet the evolving needs of our customers, whose expectations and requests are increasing in volume and growing more complex as a result of the energy transition.
- Improved customer satisfaction resulting from access to services that are user-friendly, convenient, and efficient.
- Improved customer confidence in light of a complex and shifting energy environment.
- Customers are better and more quickly informed as a result of proactive communications.
- Greater access to customer insights to better forecast and model energy transition trends and CER uptake.

[28] Distinguishing the business benefits from direct benefit to customers, calculated as Customer Value of Time, which is consistent with submissions by other DNSPs such as CitiPower, Ausgrid, and Endeavour Energy.

5.6 Comparison of options: Option 2 – Advanced self-service for large customers and business

5.6.1 Description

This option delivers all the capabilities noted within Option 1, with the addition of large/complex customer connections capabilities to aid improved self-services and collaboration, as well as a chat-based service aimed at supporting all customers (residential and business).

Capabilities to be included are:

- **A connections-indicative quoting tool:** there is a significant investment of staff time and resources to develop connection quotes when requests are made by our customers, yet up to half of the quotes developed do not proceed, rendering the time spent developing the quote as an administrative overhead of the process.
- **Drawing and design:** where third-party designers and consultants need to update network drawings. The current email and file-transfer method of sharing existing drawings is inefficient and prone to error and overheads. Strict rules are in place that make it difficult to share access to certain systems, where drawing assets are being stored, with external parties.
- **Web chat capability:** whereby all customers (residential and business customers) could engage with us through an instant text-based mechanism.

Each of these capabilities requires additional investment in new technologies to eliminate much of the manual effort and improve the information exchange through automation.

While these additional service capabilities and functionalities will provide improved collaboration and exchange of information, as well as increased channel choice for our large business customers, this option was least preferred by customers involved in the People's Panel Reset stakeholder engagement process. The desire for more-broadly applicable digital capabilities was made clear by our customers and therefore, this option is not recommended.

5.6.2 Costs

Table 11: Option 2 – Total cost by cost type ($m June 2022 real)

Cost type	2025–26	2026–27	2027–28	2028–29	2029–30	Total 2025–30	2030–31	2031–32	2032–33	2033–34	2034–35	Total 2030–35
Capex	-	-	-	-	2.8	2.8	-	-	-	-	-	2.8
Project opex	-	-	-	2.5	12.6	15.1	0.9	-	-	-	-	16.0
Recurrent opex	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.1	0.7
Total	-	-	-	2.5	15.4	17.9	1.1	0.1	0.1	0.1	0.1	19.5

5.6.3 Risks

The specific risks that relate to this option are listed in the table below.

Table 12: Option 2 – Risk assessment summary

Risk consequence category	Risk description	Residual risk level[29]
Financial impact – Cash loss or earning impacts	Increasing costs of providing customer services, including labour costs and communication costs.	Medium
Customers – Failure to deliver on customer expectations	Inability to respond to increasing demand for customer services (ie, volume and complexity in an accessible way with a fast response time).	Medium
Performance and growth – Failure to effectively deliver project objectives and/or benefits	Work inefficiency and redundancy resulting from labour-intensive manual work process.	Low
Advocacy, partnerships and collaboration – Misalignment between stakeholders and strategic objectives	Misalignment with the 2022–26 Customer Strategy and 2021–25 Digital & Data Strategy.	Medium
Performance and growth – Failure to effectively deliver project objectives and/or benefits	Data quality issues and process cost risks associated with paper records and manual data entry.	Low
Advocacy, partnerships and collaboration – Misalignment between stakeholders and strategic objectives	Inefficiency and challenges relating to information sharing with industry participants, such as retailers and electricians.	Low
Overall risk level		Medium

Table 13: Option 2 – Risk cost by category

Risk consequence category	Risk description	Risk cost[30]
Financial impact – Cash loss or earning impacts	Increasing costs of providing customer services, including labour costs and communication costs.	$500K – $5M
Overall risk costs		**$500K – $5M**

5.6.4 Quantified benefits

The quantified benefits of this option relate to:

Cost savings

- Reduction in mail/call/hand delivery of planned work notifications, replaced by push app notification ($0.1m)

[29] The level of risk post current controls (ie after considering what we currently do to mitigate the risk).

[30] Estimated cost of consequence(s) to SA Power Networks or its customers in an event this risk eventuates over the NPV analysis period

Cost avoidance

- Avoidance of additional staff costs being incurred as the number of Contact Centre calls are reduced ($9.9m)
- Reduced volume of SMS and mail communications used to communicate with customers ($5.5m)
- Reduced staff time in administration of claim and complaints ($0.9m)
- Reduced staff time required to manage common customer queries, eg, time to respond to connection-related enquiries ($0.6m)
- Reduced staff time required to provide connections related quotes ($9.8m)

Customer benefit

- Reduced time customers spend on calls with SA Power Networks as the number of calls to the Contact Centre is reduced ($3.4m)
- Reduced customer time required to raise common customer queries, such as service orders, claims and complaints, and reduced follow-ups due to self-service submission and status updates ($0.6m)
- Reduced time to respond to enquiries from retailers regarding customer connection-related requests, saving customers time in resolution and outcome of their enquiry with retailers ($0.5m)

Table 14: Option 2 – Benefits by expenditure type ($m June 2022 real)

Cost type	2025–26	2026–27	2027–28	2028–29	2029–30	Total 2025–30	2030–31	2031–32	2032–33	2033–34	2034–35	Total 2025–35
Cost savings	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Cost avoidance	-	0.1	0.1	0.1	3.0	3.3	3.6	4.1	4.6	5.3	5.8	26.7
Customer benefit[31]	-	0.1	0.1	0.1	0.4	0.5	0.6	0.7	0.8	0.9	1.0	4.4
Risk monetisation	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	0.1	0.1	0.2	3.4	3.8	4.2	4.8	5.4	6.2	6.8	31.2

5.6.5 Unquantified benefits

The unquantified benefits in this option are:

- Better alignment and traceability over changes in drawing design will be achieved, strengthening the accuracy of the models.
- Improved productivity and staff engagement as their work transitions from transactional to value adding.
- The ability to meet the evolving needs of our customers, whose expectations and requests are increasing in volume and growing more complex as a result of the energy transition.
- Improved customer satisfaction resulting from access to services that are user-friendly, convenient, and efficient.
- Improved customer confidence in light of a complex and shifting energy environment.
- Customers are better and more quickly informed as a result of proactive communications.

[31] Distinguishing the business benefits from direct benefit to customers, calculated as Customer Value of Time, which is consistent with submissions by other DNSPs such as CitiPower, Ausgrid, and Endeavour Energy.

- Greater access to customer insights to better forecast and model energy transition trends and CER uptake.

6. Deliverability of recommended option

6.1 Customer Technology program

The Customer Technology program is comprised of an integrated set of six initiatives, designed to replace or upgrade a number of our core customer systems and deliver the expected long-term technology capabilities to maintain current service levels, meet the increases in customer demand as a result of the energy transition, as well as our overall increase in network activity, and do so in secure cost-effective manner.

Key benefits are:

- **For our customers:** save time when interacting with SA Power Networks, improved customer experience, improved access to data, service requests and status updates.
- **For our employees:** efficiently manage enquiries, requests and resolution status to customers.

This program is summarised in Figure 5, below. We expect this program will deliver significant benefits to customers.

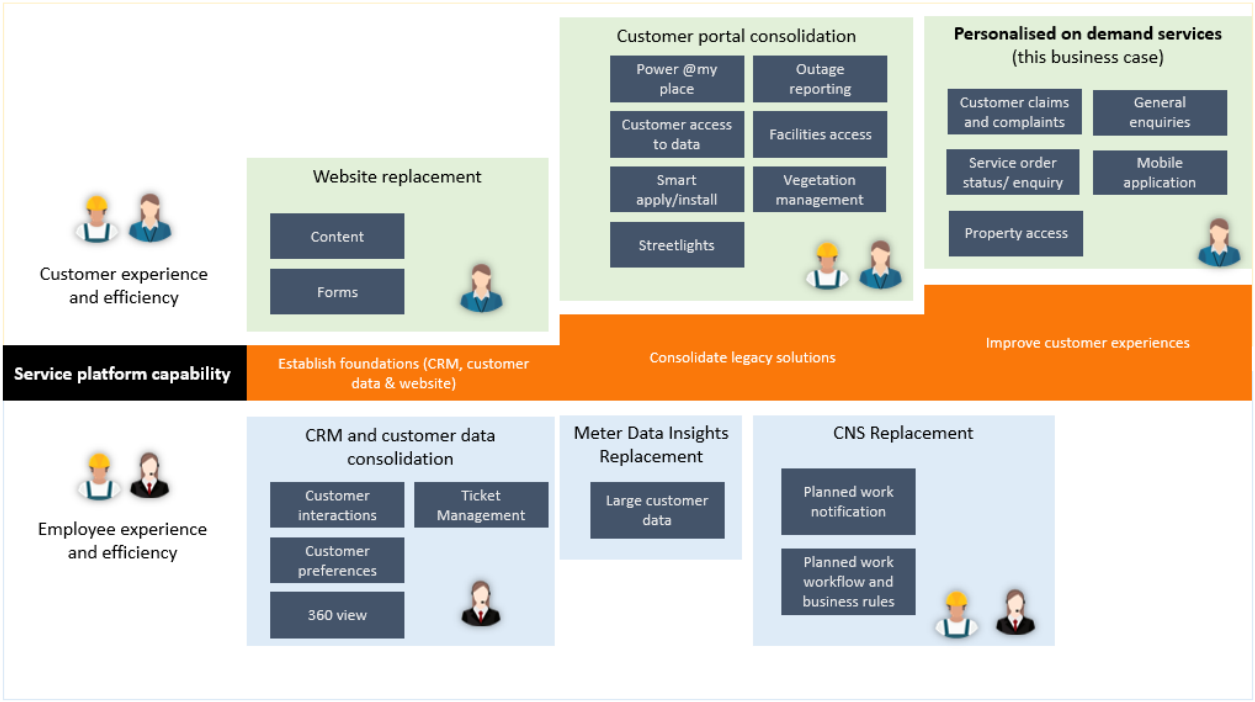


Figure 5: Proposed 2025–2030 Customer Technology program

We have built an effective program that iteratively and cost-effectively builds capability, manages risk and delivers on the long-term customer requirements (see Figure 6). The program of work allows a prudent approach to portal consolidation while maximising the customer experience outcomes. If the CRM and Customer Data Consolidation and Customer Portal Consolidation business case is not allowed, there will be an increase in cost to the delivery of new self-services.

	Initiatives/Business Cases					
Customer Technology Program – Technology Capability Requirements	**Replacement Business Cases**					**New Value Business Case**
	CRM and Customer Data Consolidation	**Customer Portals Consolidation**	**CNS Replacement**	**Website Replacement**	**MDI Replacement**	**Personalised & On-Demand Services**
Customer Centric Data Model	Replace	Reuses	Reuse		Reuse	Reuse
Notification Preference Management	Replace		Reuse			Reuse
Customer Account Detail Management (service console)	Replace	Reuse	Reuse			
Alerts and notifications	Replace	Reuse	Reuse			Reuse
Interaction history	Replace	Reuse	Reuse			Reuse
Integration	Replace	Reuse	Reuse		Reuse	Reuse
CRM & Telephony Integration	New					
Case Management	Replace	Reuse				Reuse
Document Exchange and Collaboration	Replace	Reuse				
Payment Gateway	Replace	Reuse				
Consolidated self-service interface		Replace	Reuse			Reuse
Customer feedback/surveys	Replace	Reuse	Reuse	Replace		Reuse
Reporting and analytics	Replace	Reuse	Reuse	Replace	Replace	Reuse
Website content management				Replace		Reuse
Digital Forms and workflow	Replace	Reuse		Replace		

New software/capability
Reuse software/capability added by a replacement business case

Figure 6: Customer Technology program – Initiative to capability mapping

The delivery approach assumes shared project resources across the Customer program (program manager and a pool of skilled delivery Full Time Equivalent (FTE), including architect, business analyst, developers and testers), the approach avoids ramp-down/ramp-up costs and supports a lower cost/more efficiency delivery. This approach is consistent with the program delivery methodology used for similar projects at SA Power Networks. If a program approach is not adopted, the efficiency opportunity is missed, resulting in an estimated increase of 15-20% in costs for this replacement.

Key delivery risks relate to:

- embedding a mobile application development and support capability within appropriate teams and ensuring appropriate change management to maximise value derived from the solution.

The noted risks are mitigated through a delivery approach that will ensure:

- highly skilled project delivery staff who have previous experience in delivering similar solutions at SA Power Networks
- access to highly skilled technical subject matter experts (**SME**) who have built a strong understanding of mobile application solutions
- access to vendor capabilities offered in the market to support implementation activities
- access to business SMEs with strong understanding of the processes and access to a comprehensive knowledge repository, which continues to be maintained.

7. How the recommended option aligns with our engagement

7.1 Alignment to customer expectations

We conducted extensive customer research in late 2021, involving more than 400 hours of qualitative and quantitative research with more than 1,200 people. We heard our customers expect great digital experiences, with many expecting personalised and on-demand services 24/7. Reliability, safety, and electricity affordability remain key concerns for customers, but we also heard the quality of the service we provide to customers really matters to them.

7.1.1 Focused Conversations

The full Customer Program was discussed during the "Customer Experience and Interaction" Focused Conversation workshop in September 2022. Three scenarios were presented to six groups of customer representatives and advocates (18 people):

- **Scenario 1 basic self-service** – the base scenario and represented 'as is' no change scenario.
- **Scenario 2 customer system replacement and consolidation** – this scenario was composed of all the projects within the Customer Technology Program involving replacements and upgrades (including the CRM and customer data replacement)– reflecting what needs to be done to maintain our existing levels of customer service in a rapidly transitioning energy environment.
- **Scenario 3 digital customer experience uplift** – this scenario added significant customer experience and digital channel improvements – reflecting 'new value' for customers.

The customer representatives were presented with details and the pricing impacts for each scenario (outlined above). Following detailed conversations, four of the six groups strongly supported Scenario 3, two groups supported Scenario 2, as well as parts of Scenario 3. Hence Scenario 3 was supported by majority of the participants.

Specific comments and discussion items relevant to the New Self-Services were:

- *More and more people are moving towards mobile apps, which offer a simplified interface; if you can jump on your phone where there's already an app, it is simple and easy for customers*
- *Mobile apps provide a more instant service*
- *Quality of app is important, design is important to consider*
- *A single location to manage service requests would be welcome and would save time searching and following up for information*
- *Getting more personal with customers, provide greater levels of visibility regarding data SA Power Networks has*[32]

There was strong consensus from our customers that an integrated digital service capability, accessible through one simple login point, is highly conducive to supporting good customer experiences. The proposed new self-services and mobile app capability would meet the expectations articulated and desired by our customers.

7.1.2 People's Panel

Given the recommendation from the Focused Conversation for the full expenditure, Option 2 of this business case (New Self-Service for Households and Business) was recommended to the People's Panel in March 2023. Customers indicated that they are seeking access to more-accurate and timely information and want greater levels of self-service through improved digital channels; however, there were differing

[32] Customer Experience and Interactions | Talking Power

views on the appropriate levels of expenditure (and customer price impact) to deliver desired improvements. The People's Panel was unable to reach consensus on the proposed quantum of expenditure, the positive vote falling just short of the self-determined 80% to achieve 'consensus' (24 of 33 or 73% voted for what we now refer to as Option 2).

We therefore propose Option 1 – Enable new digital services, a much more modest expenditure and scope for new self-services, as the recommended option. This is designed to maintain current levels of service, with some targeted self-service improvements to high volume customer interactions. This response is aligned to the People's Panel feedback.

7.2 Willingness to pay survey

During our stakeholder engagement program, we also engaged an independent consultant to conduct a Customer Values research survey study (supporting document 0.2 Marsden Jacob Customer Values Research) as another means to gain insights into customers' willingness to pay for specific elements of our proposal, including the question of enhancing personalised on-demand services provided by 2030. This study included an online poll of a statistically representative sample of 1,250 South Australian residential households and used a 'discrete choice' methodology that exposed respondents to a broad range of hypothetical bill impacts associated with different service levels in each area. A statistical analysis was then undertaken to estimate customers' overall average willingness to pay for different service outcomes. The results indicated that South Australian households, on average, are willing to pay for new self-services outlined in this business case, as the current proposal's customer electricity bill impact is actually less than the indicated willingness to pay.

8. Alignment with our vision and strategy

We provide services for 1.7 million South Australians, and this recommended new self-service supports our Customer Strategy 2022–2026. This initiative will support us to deliver our priorities to '*transform performance*' by modernising and streamlining customer-centric operations, and being '*digital by choice*' enhancing and personalising service experiences, drawing customers to online channels. This initiative will specifically support in providing consistent and secure experiences across our contact channels so we can provide customers with secure choice in how they interact with us. We can ensure the equity of access and experience for all our customers.

We understand the future of energy across Australia is progressing at an extraordinary rate. We are thinking and planning ahead for what this world of new technologies, changed community expectations and innovative energy services will hold, evidenced in our Customer Strategy[33], as summarised in Figure 7, below.

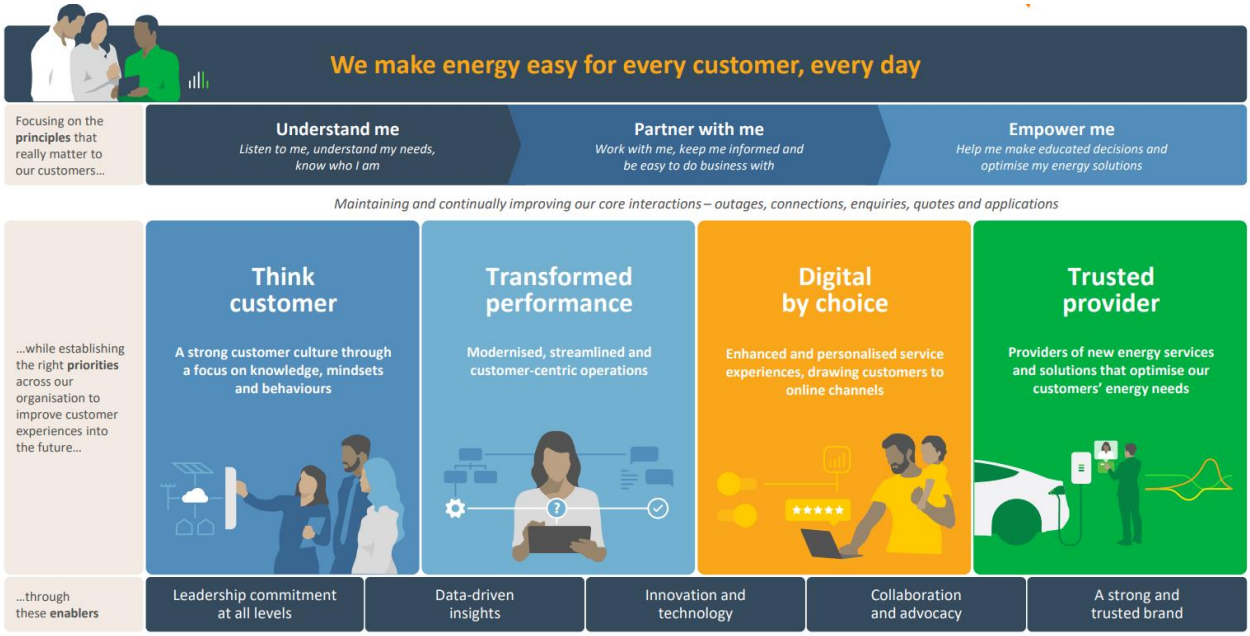


Figure 7: Customer Strategy 2022–2026 on a page

Through our Customer Charter[34], we have made the commitment to our customers that '*we will keep you informed and be easy to deal with'* and that *'we will make it easy for you to contact us when and how you want to…'*. These expectations of customers were clearly articulated to SA Power Networks through extensive qualitative and quantitative research that occurred across the SA Power Networks customer base in late 2021.

[33] Customer Strategy 2022–2026

[34] https://www.sapowernetworks.com.au/public/download.jsp?id=10324#:~:text=At%20SA%20Power%20Networks%20we,supply%20point%20on%20your%20property.

9. Reasonableness of cost and benefit estimates

9.1 Cost estimates

The proposed costs for each option were estimated through completing a detailed project cost model that was structured according to our standard Information Technology (**IT**) project methodology. This approach structures an IT project into six phases, which are further broken down into a total of 20 sub-phases that are then used to plan and cost the project. (Refer Table 15).

Table 15: Structure of SA Power Networks IT project methodology

Phase	Sub-phase
Phase 1 – Planning, project management and coordination	Planning, project management and coordination
Phase 2 – Feasibility, innovation and POCs	Feasibility, innovation and POCs
Phase 3 – Develop and plan	Plan
	Requirements
	Business case
	Vendor selection
Phase 4 – Implement – Design and architecture	Implement – Design and architecture
Phase 5 – Implement – Build and test	Software licensing (12-month upfront purchase)
	Hardware infrastructure changes
	Client device purchases
	Development
	Configuration
	Integration
	Data conversion and migration
	Testing
Phase 6 – Implement – Deploy	Training delivery
	Training materials and preparation
	Warranty
	Change management
	SME backfill

The nature of each project was flagged as to whether it was to be based on a software-as-a-service (SaaS) solution or was to be an on-premises implementation. This ensured that the modelling resulted in the appropriate accounting treatment of the expenditure – as operating or capital expense.

The effort required for the specific roles relevant to each phase of the project (eg, project manager, architect, developer, tester etc.) was estimated based on our staff and our external consultants' experience of similar past projects in SA Power Networks and at other organisations. This effort was split according to our standard internal staff/external services mix of 20% internal staff and 80% external services, and costed using our standard IT cost-estimation methodology and standard resource rate card.

Where possible, external expenses, such as licence fees and external system integrator costs, were based on actual quotes, published licence fees/rates etc. or market research[35]. In other cases, staff and external consultants' experience of the costs incurred in similar projects at SA Power Networks and other organisations was used to provide a reasonable estimate of the costs. All costs were initially calculated

[35] SAPN-DXP Market scan results (v2.0) – BDO 2021

bottom-up and then validated/refined with top-down analysis. Cost worksheets are included as an attachment.

The cost assumes reuse of technology capabilities delivered through the Customer Portal Consolidation business case.

9.2 Benefit estimates

An extensive and iterative process involving business and IT representatives was undertaken to define a set of reasonable benefits for this project. A summary of the process undertaken, and the key benefit types identified, is shown in Section 9.2.1.

This process aligns with our Value Framework and our ICT forecasting methodology. The use of factual historical data and future forecasts derived, where possible, from external sources, such as AEMO, ensures an industry best-practice approach that meets Australian Energy Regulator (AER) and community expectations and results in a justifiable and reasonable estimate of the benefits. Where relevant, we have undertaken sensitivity analysis to understand the degree to which the benefits vary with changes in the key assumptions, to ensure the robustness of the calculations.

9.2.1 Benefit estimation process overview

Avoiding increases in costs incurred under Option 0 – BAU

- Estimates were made as to the projected increase in relevant costs under a business as usual (**BAU**) scenario (ie, without the proposed investment). These typically related to increases in Contact Centre call volumes and SMS communications resulting from the planned increase in network maintenance activity and the general increase in the complexity of the electricity industry being experienced by customers. The volume increases vary according to the call type/subject matter and therefore impact each technology/service area differently.
- These projected cost increases were initially used in costing Option 0, as they represent a cost of not undertaking any additional investment. Subsequently, when calculating and comparing the NPVs of the individual options, the part of these costs that was also being treated as a cost avoidance benefit was removed from the total benefits related to Options 1 and 2. This ensured that they weren't being double counted in the initial calculations.
- Following this, the NPV of Option 0 was set to NIL and instead treated as a cost avoidance benefit in the other options (Refer 5.3.1). This ensures that these BAU cost increases were being properly reflected as an avoided cost increase from undertaking the proposed investment under Options 1 and 2.
- While the assessed options above would actually result in a number of the projected costs being reduced below their assumed FY25 baseline, to be conservative, we have capped any claimed benefits to the increase above that baseline. These benefits are therefore fully characterised as avoidance of future cost increases, rather than as a reduction in the existing cost base.
- The time saving from the reduced number of Contact Centre calls, including on-hold time etc, was also translated into a saving in time for the customer. This was costed using the average South Australian weekly earnings rate from the Australian Bureau of Statistics (ABS). (Note: this was NOT part of the Option 0 costs referred to above, as it does not represent a direct cost to the business.)

Other cost savings and efficiency gains

- Several other cost savings and efficiency gains were identified through discussion with business representatives. Estimates of the impact of the investment on these cost areas were made based on actual current costs being incurred, the knowledge and experience of SA Power Networks business and IT staff, and advice from external consultants, as appropriate. In all cases, the benefits were assumed to start from the year following completion of the investment. The benefits were also 'phased in' such

that the full calculated annual benefit took time to be realised, where appropriate to do so. For example, as take-up and use of the new website is projected to grow over time.

Growth projections

- Wherever possible, when % growth projections were used in the modelling, these were derived from actual cost and volume trends, external data (eg, AEMO-projected EV take-up by customers) or future plans from the business (eg, increase in network asset maintenance). The advice of our external consultants and the experience of key business representatives were used to derive the likely future decreases in costs resulting from the investment. The growth factors used for this particular business case are summarised in Section 10, below.

Shared benefits

- Where an estimated cost avoidance/reduction was considered to result from the combination of more than one investment (eg, it required both the new website and consolidated portals), then the derived benefit was apportioned between the relevant projects according to their estimated contribution to achievement of those benefits.

10. Reasonableness of input assumptions

The following growth/trend assumptions have been used in developing the costs and benefits for this project:

Table 16: Key input assumptions and their impacts

Assumption	Source	Impact
Growth in Contact Centre calls related to unplanned outages.	Annualised compound growth of such calls from 2017 to 2022, based on actual call centre statistics and projected to continue.	Staff and customer time spent on calls to the Contact Centre.
Growth in Contact Centre calls related to planned outages.	Planned annual increases in value of relevant network maintenance activity as a proxy for switching events that result in the need for notifying customers of outages.	
Growth in Contact Centre calls related to general enquiries and 'other' matters.	Estimate by external consultants and business representatives.	
Growth in complaint calls to Contact Centre.	Historical annual increase over past seven years, projected forward.	Administration time to resolve complaints.
Growth in written enquiries to the Contact Centre.	Calculated straight line trend of actual enquiries received from Q1 2021–22 to Q3 2022–23.	Staff and customer time spent on writing and responding to written enquiries to the Contact Centre.
Growth in SMS communication for planned outages.	Planned annual increases in value of relevant network activity that result in the need for notifying customers of outages.	Direct SMS costs.
Growth in SMS communication for unplanned outages.	Annual growth in unplanned outage SMSs from 2017 to 2022.	Direct SMS costs.

These are considered the best available sources for each of the above assumptions and therefore represent a reasonable basis from which to calculate the cost increases that will be avoided under Options 1 and 2.

Other inputs to the benefit calculations are documented in Section 9, above, and in the forecast spreadsheets.

11. Scenario and sensitivity analysis

The following scenarios were adopted or tested to analyse the sensitivity of key forecast inputs:

Table 17: Scenario testing

Scenario	Source	Test result
Upper and lower sensitivity scenarios that added or deducted 20% of forecasted call volumes were tested across: • the main interactions the Contact Centre currently receives, such as status of connections, meter reads, complaints, planned outages, unplanned outages, and Flexible Exports • unplanned outages based on severe weather events • increased work on the network and associated customer interaction rates • energy transition factors, including customer energy resource adoption demanding higher and more complex engagement with customers.	Annual compound growth of such calls from 2017 to 2022, based on actual call centre statistics and historic call volumes and lengths, with average handle times and hold times from the last five years (2017–2022). Projected increase in customer uptake of energy resources, based on AEMO's 2022 Forecasting Assumptions Update. . SA Power Networks historic call data for customer energy resource related enquiries.	The upper sensitivity scenario showed $31.7 million in quantified benefits and the lower sensitivity scenario yields $17.3 million in quantified benefits for the new self-service capability. The testing demonstrated that there isn't a significant impact to the benefits. The benefits remain significantly higher than the cost to execute the program under the recommended option.

The cost-and-benefits model was tested to account for the Australian Electricity Market Commission's (**AEMC**) accelerated smart meter rollout, but this was not adopted as the availability of smart-meter data, without needing to purchase, has yet to be decided, as per the AEMC rule change. Hence, a conservative forecast of the smart meter rollout was adopted, reflected in the decline of customer calls about meter reads, and in contrast, an increase in calls about Flexible Exports (**FE**), with a projection of FE uptake reflected in calculations. Moreover, the increased workload in the Contact Centre has also been modelled, based on recent years with severe weather events exacerbating the number of interactions with customers.

The impact of replacing ageing network assets was factored into calculations, projecting the planned outages that will cause an increased volume of calls to the Contact Centre. The new self-service capability will benefit customers and staff by saving both parties time from calls. The scenario adopted also considers the energy transition, as CER adoption will demand a higher and more complex level of engagement with customers.

Electric Vehicle (**EV**) adoption numbers used in benefits modelling are based on the AEMO's 2022 Forecasting Assumptions Update[36], where the Step Change scenario was adopted with 45% average yearly growth of the number of EVs between 2025 and 2035. The Slow Change scenario from AEMO was tested and yielded a slightly lower benefits outcome, with 41% average yearly growth of the number of EVs between 2025 and 2035. Consequently, in a Slow Change scenario, there would be a lesser volume of Contact Centre calls and subsequent customer time saved, with status enquiries relating to the installation of chargers and the connections process around EV ownership.

[36] 2022 Forecasting Assumptions Update

A. Appendix A – Cost models

Option 0:

Customer Technology Program estimate – No change.xlsm

Option 1:

Customer Technology Program estimate – Preferred.xlsm

Option 2:

Customer Technology Program estimate – Non-Preferred.xlsm

B. Appendix B - Base-year opex adjustment (preferred option)

The following provides a summary of the requested opex changes for the base year adjustment.

Category	Project/Business Case	2025–26	2026–27	2027–28	2028–29	2029–30	Total 2025 – 30
Base-year adjustment: Accounting treatment change	Website Replacement	-	-	1.2	0.9	-	2.1
	Portal Consolidation	-	-	3.4	3.2	3.1	9.7
	MDI Replacement	1.7	-	-	-	-	1.7
	CRM Replacement and Customer Data Consolidation	3.7	5.1	0.5	-	-	9.4
	Personalised on Demand Services (this business case)	**-**	**-**	**-**	**1.4**	**6.0**	**7.4**
	Total base-year opex adjustment	**5.5**	**5.1**	**5.1**	**5.5**	**9.1**	**30.3**

Accounting treatment change

Topic	Detail
Background	Accounting rule clarification in early 2021 confirmed that the costs of configuring and customising application software in a cloud-computing or SaaS arrangement should not be capitalised, with the business no longer having control over the asset. The impact for the Personalised on Demand Services is switching from capex to opex as these products are more readily offered as SaaS solutions.
Request	A base-year opex adjustment of $7.4 million as a component of the overall Customer Technology Program adjustment of $30.3 million.

C. Appendix C – Risk assessment

				Current risk (Option 0)			Residual risk (Option 1)			Residual risk (Option 2)		
ID	**Risk scenario**	**Consequence description**	**Consequence category**	**Consequence**	**Likelihood**	**Risk level**	**Consequence**	**Likelihood**	**Risk level**	**Consequence**	**Likelihood**	**Risk level**
1	Costs of providing customer services, including labour costs and communication costs	Significant costs associated with labour efforts to manually capture and respond to customer enquiries.	**Financial impact** – Cash loss or earning impacts	2	5	**High**	1	3	**Low**	1	3	**Low**
		High communication costs associated with the inefficient customer interaction and communication approach (ie, phone calls and emails).	**Financial impact** – Cash loss or earning impacts	2	5	**High**	1	3	**Low**	1	3	**Low**
2	Inability to respond to increasing demand for customer services (ie, volume and complexity) and mobile-friendly experience (ie, accessibility and fast response time).	Customers expect fast, seamless response to their enquiries and easy access to the information they need to make energy decisions. There is a high risk of failing to meet changing customer needs and provide enhanced and personalised services.	**Customers** – Failure to deliver on customer expectations	2	5	**High**	1	2	**Negligible**	1	2	**Negligible**
		The volume of customer enquiries has increased significantly, with about 31,000 sales-order enquiries p.a., and a 15% increase in claims and complaints p.a. since 2018. There is a high risk of failing to support rapidly increasing customer service demand.	**Customers** – Failure to deliver on customer expectations Performance and Growth – Failure to effectively deliver	2	5	**High**	1	3	**Low**	1	3	**Low**

			project objectives and/or benefits										
		More and more customers rely on mobile devices to access information and seek advice, and expect the service to be available 24/7. Inability to support the need for digital and mobile-friendly experience brings high risk of failing to deliver customer expectations.	Customers – Failure to deliver on customer expectations	2	5	High	1	2	Negligible	1	2	Negligible
3	Work inefficiency and redundancy resulting from labour-intensive manual work process.	Significant resource effort and time required to provide customer services, capture customer enquiries on paper records and manually input into the system.	**Financial impact** – Cash loss or earning impacts Performance and Growth – Failure to effectively deliver project objectives and/or benefits	3	5	High	2	2	Low	2	2	Low
		Work redundancy, lack of quality oversight and team collaboration resulting from low visibility and transparency.	**Financial impact** – Cash loss or earning impacts Performance and Growth – Failure to effectively deliver project objectives and/or benefits	2	4	Medium	2	2	Low	2	2	Low
4	Misalignment with the strategic goal.	Misalignment with 2022–26 Customer Strategy and priorities, including: • Transformed performance: Modernised, streamlined and customer-centric operations • Digital by choice: Enhanced and personalised service	**Advocacy, partnerships and collaboration** – Misalignment between stakeholders and strategic objectives	2	5	High	2	1	Negligible	2	1	Negligible

		experiences, drawing customers to online channels • Trusted provider: Providers of new energy services and solutions that optimise our customers' energy needs											
		Misalignment with 2021–25 Digital & Data Strategy, including: • Trusted data driving decisions • Digitally enabled work practices • People-focused technology • Enabling future energy platform • Growth through innovation and insight	**Advocacy, partnerships and collaboration** – Misalignment between stakeholders and strategic objectives	1	5	Medium	1	1	Negligible	1	1	Negligible
5	Data-quality issues and other risks associated with paper records and manual data entry.	Human errors and information inconsistency associated with manual effort and ad-hoc methods of communication.	**Performance and growth** – Failure to effectively deliver project objectives and/or benefits	3	4	High	3	2	Low	3	2	Low
		Missing information and unresolved enquiries that impact customer satisfaction.	**Customers** – Failure to deliver on customer expectations	2	4	Medium	2	2	Low	2	2	Low
		Inability to utilise customer data and obtain customer insights to improve services and forecast for future planning.	**Performance and growth** – Failure to effectively deliver project objectives and/or benefits	2	4	Medium	2	2	Low	2	2	Low
6	Inefficiency and challenges relating to information sharing with industry participants, such as retailers and electricians	Significant time and effort required to share information with external stakeholders, reducing productivity and efficiency of workforce.	**Financial impact** – Cash loss or earning impacts	2	5	High	2	2	Low	2	2	Low

	Negative stakeholder engagement experience that impacts public perception of SA Power Networks.	**Advocacy, partnerships and collaboration** – Misalignment between stakeholders and strategic objectives	2	4	Medium	2	2	Low	2	2	Low
		Overall risk level[37]			High			Low			Low

[37] For each option, the overall risk level is the highest of the individual risk levels.